

December 15, 2006

Mr. Steve Glomb
US Department of the Interior
Office of the Secretary
1849 C Street NW
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Dear Steve:

Thank you for the opportunity to submit a written version of the comments I made to the FACA Committee on November 30 in Washington DC.

As I indicated in my oral comments, I think that the November 27th draft Subcommittee 3 report addresses the central questions raised by the FACA committee as to whether the rule needs to be changed to accommodate project-based estimation of interim compensable values. However, I remain unconvinced that there is a need to alter the current 43 CFR Part 11 regulations to accommodate project-based estimation of interim compensable values. Such project-based estimation is taking place now, and I have never been involved in a case in which the current regulations prevented a settlement from being reached. If clarifications are needed, they could be addressed through guidance. Because the Department's economics guidance document was written 20 years ago, I am sure that many topics in that document would benefit from an updated treatment and a review of the professional literature.

However, if the Department were to decide to modify the regulations, the proposed text on Page 5 of the draft report would be the most effective way to accommodate the perceived need to specify a defined role for project-based estimation of interim compensable values. The draft report states that 11.83 (c)(1) could be amended to add:

Alternatively, compensation can be based upon the cost of a project that efficiently restores the loss in natural resource services.

This text maintains the distinction between cost and value that is a fundamental principle of economics, which is clearly expressed in the current rule. Additionally, the sentence adds the fundamental principle of economic efficiency, which requires that the project selected should be the one that provides the appropriate level of compensation at the lowest potential cost. While other factors can be considered within the current rule, economic efficiency is the only one that ensures the least amount of society's resources are used to achieve the required level of compensation. Furthermore, as the draft Subcommittee 3 report notes, this language only applies to the measurement of any interim losses that might occur between the time an injury happens and restoration is completed. Such a change would maintain the economic integrity of the current regulations, which is essential to having sound

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damage measures. Otherwise, society would not have a benchmark for determining the optimal amount of restoration.

Moreover, it is important to consider that natural resource damage claims for interim losses are claims for monetary damages. These claims are for the loss of services from natural resources and are not claims based on the cost of restoring the resource to baseline levels. The current CFR regulations embody the fundamental economic principles for measuring damages—that is foregone producer or consumer surplus.

Additionally, the draft report correctly points out that it is services from natural resources that people value, more so than the resource itself. Services provide the linchpin between injury determination and damage measurement. The concept of services is also what ties together the interdisciplinary approach that is critical to developing sound measures of natural resource damages. Banzhaf and Boyd (2005) emphasize that services are the end products of nature that yield human well being. They argue that although ecological services must be derived from the natural environment, they must result in an end-product that is useful to humans. The fact that the National Academy of Science's National Research Council (2005) chose as its title: Valuing Ecological Services: Toward Better Environmental Decision-Making further underscores the importance of the role that services play in valuation, whether it be in natural resource damage assessment or any environmental policy context. The NRC report is very clear in its view of services:

“Economic valuation requires that ecosystems be described in terms of the goods and services they provide to human or other beneficiaries” (p.22).

Additionally, the report adds:

“Although valuing ecosystem services does not require knowledge of the function that maps human actions into ecosystem conditions, evaluating whether certain actions are in society's best interest does require this knowledge (p.24)”

Another issue of concern to me is that the Subcommittee 3 report misstates the state of knowledge that exists in regard to habitat equivalency analysis, or HEA. In particular, the draft report states on p. 12:

“Standards have been developed that govern when the use of HEA is appropriate and what values should be used in running the algorithm.”

This statement is clearly contradicted by the recent professional literature. For example, the National Research Council does not even mention HEA in Valuing Ecological Services. Such an omission surely indicates that HEA is not an established method for valuing ecological services. Additionally, a recent article by Cacula, et al. (2005) notes:

“Interpreting reports about the toxic effects of hazardous substances and estimating the associated actual or potential environmental injuries and applying this knowledge in HEA is still an emerging aspect of the practice...” (p. 343).

The authors go on to say:

“Translating knowledge about toxicity into formulas useful for HEA typically requires some degree of subjective interpretation and justifications based on professional judgment” (p. 343).

While I may disagree with other aspects of the Cacula, et al. manuscript, I think it clearly describes the state of the art in applying HEA in damage assessments. Standards simply do not exist at this time. Such issues would be well-suited for a technical discussion in a workshop process, or at least for consideration in a guidance document that would attempt to move HEA from the world of arbitrary judgment to well-accepted standards.¹

Finally, I have concerns about the Subcommittee 3 report’s treatment of conjoint analysis, which relies upon “stated preference” data, as opposed to data based on actual behavior. While conjoint analysis is at least based on standard economic concepts, and that methodology overall has been subject to more scrutiny in the professional literature than HEA, I am concerned that conjoint as it is applied to valuing ecological services, is an experimental methodology. For example, the National Research Council (2005) notes that the use of conjoint analysis for valuing ecosystem services is relatively recent, and that very few studies have been done that valued ecosystem services.

My own concern with conjoint analysis can be traced to my experience in the Fox River Damage assessment. My colleagues and I found that recreation models based on stated preference data predicted people would drive approximately 150 miles to avoid a fish consumption advisory, while models based on actual trips taken predicted that people would drive less than 20 miles (Desvousges, MacNair and Smith 2000). Such a large disparity between stated preferences and actual behavior poses real concerns about the ability of conjoint analysis to properly measure service losses—which is independent of the debate over the need for project-based restoration. This is especially true since recreational fishing has received considerably more attention in the professional research literature than ecological service valuation. Conjoint analysis, like HEA, is simply not ready to pass rigorous reliability tests as part of natural resource damage assessments under the DOI rule.

¹ The authors of the Cacula article include two staff from natural resource trustee agencies. Milon and Dodge (2001) also express similar concerns about the lack of standards for HEA.

Thank you again for the opportunity to provide my comments in writing. If you should have any questions, please do not hesitate to contact me.

Sincerely,



William H. Desvousges
President

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